Amendment to the Claims:

This listing of claims will replace all prior versions, and listings of claims in the application:

Listing of Claims:

1. (Allowed) A compound represented by the formula (I), or a salt thereof,

$$\begin{array}{c|c}
\hline
T^1 \\
X^1 \\
X^1 \\
X^2 \\
X^2
\end{array}$$

$$X^3 \qquad (I)$$

wherein,

T¹ is a piperazin-1-yl group, a 3-amino-piperidin-1-yl group, or a 3-methylamino-piperidin-1-yl group;

- X³ denotes an oxygen atom or a sulfur atom,
- X¹ denotes a C₁₋₆ alkyl group which may have substitutents, a C₂₋₆ alkenyl group which may have substitutents, a C₂₋₆ alkynyl group which may have substitutents, a C₆₋₁₀ aryl group which may have substitutents, a 5 to 10-membered heteroaryl group which may have substitutents, a C₆₋₁₀ aryl C₁₋₆ alkyl group which may have substitutents;
- Z¹ denotes a nitrogen atom;
- Z² denotes a group of the formula -CR¹;

in formula (I), the following formula



denotes a double bond;

R¹ and X² each independently denote a hydrogen atom, a 4 to 8-membered heterocyclic group which may have substitutents, or a group represented by the formula -A⁰-A¹-A²;

A⁰ denotes a single bond, or a C₁₋₆ alkylene group that may have 1 to 3 substituents selected from the following substituent group A;

A¹ denotes a single bond, oxygen atom, sulfur atom, a sulfinyl group, a sulfonyl group, a carbonyl group, a group of the formula -O-CO, a group of the formula -CO-O-, a group of the formula -NR^A-, a group of the formula NR^A-CO-, a group of the formula -SO₂-NR^A-, or a group of the formula -NR^A-SO₂-;

 A^2 and R^A each independently denote a hydrogen atom, a cyano group, a C_{1-6} alkyl group, a C_{3-8} cycloalkyl group, a C_{2-6} alkenyl group, a C_{2-6} alkynyl group, a C_{6-10} aryl group, a 5 to 10-membered heteroaryl group, a 4 to 8-membered heterocyclic group, or a C_{6-10} aryl C_{1-6} alkyl group;

however, A² and R^A each independently may have 1 to 3 substituents selected from the substituent group A described below:

<Substituent group A>

substituent group A refers to a group consisting of: a hydroxyl group, a mercapto group, a cyano group, a halogen atom, a C_{1-6} alkyl group, a C_{3-8} cycloalkyl group, a C_{2-6} alkenyl group, a C_{2-6} alkynyl group, a C_{6-10} aryl group, a 5 to 10-membered heteroaryl group, a 4 to 8-membered heterocyclic group, a C_{1-6} alkoxy group, a C_{1-6} alkylthio group, a group of the formula -NR^{B4}-R^{B5} (where R^{B4} and R^{B5} denote hydrogen atoms or C_{1-6} alkyl groups), a group of the formula -CO-R^{B6} (where R^{B6}

denotes a 1-pyrolidinyl group, a 1-morpholinyl group, a 1-piperazinyl group, or a 1-piperidyl group), and a group of the formula -CO-R^B-R^{B2} (where R^B denotes a single bond, an oxygen atom, or a group represented by the formula -NR^{B3}-; R^{B2} and R^{B3} each independently denote a hydrogen atom, a C_{1-6} alkyl group, a C_{3-8} cycloalkyl group, a C_{2-6} alkenyl group, a C_{2-6} alkynyl group, a C_{6-10} aryl group, a 5 to 10-membered heteroaryl group, a C_{6-10} aryl C_{1-6} alkyl group, or a 5 to 10-membered heteroaryl C_{1-6} alkyl group)].

2. (Allowed) A compound represented by the formula (II), or a salt thereof,

$$T^{1a}$$
 X^{1a}
 X^{1a}
 X^{3a}
 X^{3a}
 X^{2a}
 X^{2a}

wherein,

Z^{3a} denotes a nitrogen atom;

X^{3a} denotes an oxygen atom or a sulfur atom;

T^{1a} is a piperazin-1-yl group, a 3-amino-piperidin-1-yl group, or a 3-methylamino-piperidin-1-yl group;

X^{1a} denotes a hydrogen atom, a C₂₋₆ alkenyl group, a C₂₋₆ alkynyl group, or a benzyl group;

 R^{1a} denotes a hydrogen atom, a halogen atom, a C_{1-6} alkyl group, a cyano group, or a group represented by the formula $-A^{0a}-A^{1a}$;

A^{0a} denotes an oxygen atom, a sulfur atom, or a group represented by the formula -NA^{2a}-;

A^{1a} denotes a hydrogen atom, a C₁₋₆ alkyl group, a C₂₋₆ alkenyl group, a C₂₋₆ alkynyl group, a phenyl group, a cyanophenyl group, a carbamoylphenyl group, a benzyl group, a pyridyl group, or a pyridyl group;

A^{2a} denotes a hydrogen atom, or a C₁₋₆ alkyl group;

X^{2a} denotes a hydrogen atom, a C₂₋₆ alkenyl group, a C₂₋₆ alkynyl group, a cyclohexenyl group, a 1H-pyridin-2-on-yl group, a 1-methyl-1H-pyridin-2-on-yl group, a C₁₋₆ alkyl group that may have a group selected from substituent group B described below, a phenyl group that may have a group selected from substituent group B described below, a 5 or 6-membered heteroaryl group that may have a group selected from substituent group B described below, a phenyl C₁₋₆ alkyl group that may have a group selected from substituent group B described below, or a pyridyl C₁₋₆ alkyl group that may have a group selected from substituent group B described below:

<Substituent group B>

substituent group B refers to a group consisting of a chlorine atom, a bromine atom, a cyano group, a C_{1-6} alkyl group, a C_{2-6} alkenyl group, a C_{2-6} alkynyl group, a C_{3-8} cycloalkyl group, a C_{1-6} alkoxy group, a carbamoyl group, a carboxyl group, and a C_{1-6} alkoxycarbonyl group].

3. (Allowed) A compound represented by the formula (III), or a salt thereof,

$$\begin{array}{c|c}
 & T^{1b} \\
 & N \\$$

wherein.

T^{1b} stands for a piperazin-1-yl group, a 3-amino-piperidin-1-yl group, or a 3-methylamino-piperidin-1-yl group;

X^{1b} denotes a 2-pentynyl group, a 2-butynyl group, a 3-methyl-2-butenyl group, a 2-butenyl group, or a benzyl group; and

 R^{1a} and X^{2a} have the same meaning as R^{1a} and X^{2a} of claim 2 defined above].

- 4. (Allowed) The compound of claim 2 or 3, or a salt thereof, wherein R^{1a} is a hydrogen atom, a chlorine atom, a cyano group, a methoxy group, an ethoxy group, an i-propyloxy group, a methylthio group, an allyloxy group, a 2-butynyloxy group, a phenyloxy group, a cyanophenyloxy group, a carbamoylphenyloxy group, a phenylmethyloxy group, a (phenylmethyl)amino group, a pyridylmethyloxy group, a pyridyloxy group, an amino group, a methylamino group, a dimethylamino group, or a diethylamino group.
- 5. (Allowed) The compound of claim 2 or 3, or a salt thereof, wherein R^{1a} is a hydrogen atom, a methoxy group, an ethoxy group, an i-propyloxy group, a 2-cyanophenyloxy group, or a 2-carbamoylphenyloxy group.
- 6. (Allowed) The compound of claim 2 or 3, or a salt thereof, wherein X^{2a} is a hydrogen atom, a methyl group, an ethyl group, an n-propyl group, a 2-methylpropyl group, a group represented by the formula $-CH_2-R^{10}$ (where R^{10} denotes a carbamoyl group, a carboxyl group, a methoxycarbonyl group, a cyano group, a cyclopropyl group, or a methoxy group), a 3-cyanopropyl group, an allyl group, a 2-propionyl group, a 2-butynyl group, a 2-methyl-2-propenyl

group, a 2-cyclohexynyl group, a chloropyridyl group, a methoxypyridyl group, a methoxypyrimidyl group, a pyridyl group, a furyl group, a thienyl group, a pyridylmethyl group, a 1H-pyridin-2-on-5-yl group, a 1-methyl-1H-pyridin-2-on-5-yl group, a phenyl group that may have a group selected from substituent group Y described below, or a phenethyl group that may have a group selected from substituent group Y described below:

substituent group Y is a group consisting of: a chlorine atom, a bromine atom, a methoxy group, a cyano group, a vinyl group, and a methyl group.

- 7. (Currently Amended) The compound of claim 2 or 3, <u>or</u> a salt thereof, wherein X^{2a} is a methyl group, n-propyl group, allyl group, 2-propynyl group, 2-butynyl group, cyclopropylmethyl group, phenyl group, 3-pyridyl group, 3-furyl group, 3-thienyl group, 2-methoxy-5-pyrimidinyl group, 2-methoxy-5-pyridyl group, 2-chloro-4-pyridyl group, or 1H-pyridin-2-on-5-yl group.
- 10. (Allowed) A pharmaceutical composition comprising the compound of claim 1, or a salt thereof, and an adjuvant for formulation.